



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

NOTICE OF ALLOWANCE AND ISSUE FEE DUE

18M2/1124

PATREA L PABST
ARNALL GOLDEN & GREGORY
2800 ONE ATLANTIC CENTER
1201 W PEACHTREE STREET
ATLANTA GA 30309-3450

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
08/458,978	06/02/95	019	NAFF, D 1808	11/24/97
First Named Applicant	EDELMAN, ELAZER R.			

TITLE OF INVENTION: INHIBITION OF VASCULAR SMOOTH MUSCLE CELL PROLIFERATION WITH IMPLANTED MATRIX CONTAINING VASCULAR ENDOTHELIAL CELLS (AS AMENDED).

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
1 MIT6584	424-093.700	U45	UTILITY	YES	\$660.00	02/24/98

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.

THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.

HOW TO RESPOND TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
- B. If the status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

- A. Pay FEE DUE shown above, or
- B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give application number and batch number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
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SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
08/458,978	06/02/95	EDELMAN	E MIT6584

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EXAMINER

NAFF, D

ART UNIT	PAPER NUMBER
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1808

DATE MAILED:

11/18/97

11/18/97
T. Gray

NOTICE OF ALLOWABILITY

PART I

- ☒ This communication is responsive to amendment of 10/28/97 and interview of 11/18/97
- ☒ All the claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice Of Allowance And Issue Fee Due or other appropriate communication will be sent in due course.
- ☒ The allowed claims are 1-18 + 20
- ☐ The drawings filed on _____ are acceptable.
- ☐ Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received. ☐ not been received. ☐ been filed in parent application Serial No. _____, filed on _____
- ☒ Note the attached Examiner's Amendment.
- ☒ Note the attached Examiner Interview Summary Record, PTOL-413.
- ☐ Note the attached Examiner's Statement of Reasons for Allowance.
- ☐ Note the attached NOTICE OF REFERENCES CITED, PTO-892.
- ☐ Note the attached INFORMATION DISCLOSURE CITATION, PTO-1449.

PART II

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE THREE MONTHS FROM THE "DATE MAILED" indicated on this form. Failure to timely comply will result in the ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

- ☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.
- ☒ APPLICANT MUST MAKE THE DRAWING CHANGES INDICATED BELOW IN THE MANNER SET FORTH ON THE REVERSE SIDE OF THIS PAPER.
 - ☐ Drawing informalities are indicated on the NOTICE RE PATENT DRAWINGS, PTO-948, attached hereto or to Paper No. _____. CORRECTION IS REQUIRED.
 - ☐ The proposed drawing correction filed on _____ has been approved by the examiner. CORRECTION IS REQUIRED.
 - ☐ Approved drawing corrections are described by the examiner in the attached EXAMINER'S AMENDMENT. CORRECTION IS REQUIRED.
 - ☒ Formal drawings are now REQUIRED.

Any response to this letter should include in the upper right hand corner, the following information from the NOTICE OF ALLOWANCE AND ISSUE FEE DUE: ISSUE BATCH NUMBER, DATE OF THE NOTICE OF ALLOWANCE, AND SERIAL NUMBER.

Attachments:

- ☒ Examiner's Amendment
- ☒ Examiner Interview Summary Record, PTOL-413
- ☐ Reasons for Allowance
- ☐ Notice of References Cited, PTO-892
- ☐ Information Disclosure Citation, PTO-1449

- ☐ Notice of Informal Application, PTO-152
- ☐ Notice re Patent Drawings, PTO-948
- ☐ Listing of Bonded Draftsmen
- ☐ Other

DAVID M. NAFF
PRIMARY EXAMINER
ART UNIT 1828

01/07/1998 EKURTZ 00000065 DAI:012507 08458978
01 FC:216 145.00 CH
PTOL-37 (REV. 4-89)

USCOMM-DC 89-3789

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

In the title, cancel "OCCLUSION FOLLOWING INTERVENTION" and insert

-- SMOOTH MUSCLE CELL PROLIFERATION WITH IMPLANTED MATRIX CONTAINING VASCULAR ENDOTHELIAL CELLS --;

page 24, line 3, cancel "Invention" and insert -- Disclosure --;

Cancel the abstract (lines 4-16) and insert the following abstract

--
A composition and method are provided for inhibition of vascular smooth muscle cell proliferation following injury to the endothelial cell lining of a blood vessel such as resulting from angioplasty, vascular bypass surgery or organ transplantation. The composition is a matrix such as a biodegradable hydrogel made of a synthetic polymer, protein or polysaccharide seeded with vascular endothelial cells which can be xenografts, allografts or autografts, or genetically engineered cells. Attachment of cells to the matrix can be enhanced by coating with collagen, laminin, fibronectin, fibrin, basement membrane components or attachment peptides. Biologically active compounds such as anti-inflammatory agents may also be contained in the matrix. In the method, the matrix containing endothelial cells is implanted in a patient at a site adjacent the injury such as by wrapping the matrix around the blood vessel. The endothelial cells secrete products that diffuse into surrounding tissue but do not migrate to the endothelial

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cell lining of the blood vessel. The endothelial cells may be obtained by biopsy of the patient into which the matrix is implanted and the cells can be cultured in the matrix *in vitro* and then implanted *in vivo*. -;

5 Applicants' representative, Patrea L. Pabst, authorized the following amendments on 11/18/97 during a personal interview:

Claim 1,

line 2, after "vessel" first occurrence, insert -- having an endothelial cell lining --, and cancel "vascular tissue in a region" and insert -- the endothelial cell lining --;

10 line 6, before "endothelial", both occurrences, insert -- vascular --, and change "vascular tissue" to -- the endothelial cell lining --;

line 8, before "endothelial" insert -- vascular --, cancel "arterial" and insert -- endothelial cell --, and after "lining" insert -- of the blood vessel --;

15 Claim 6, line 3, cancel "carbohydrates, and";

Claims 8 and 18, line 5, cancel "and", first occurrence, and insert -- factors, --;

Claim 11,

20 line 2, after "vessel" first occurrence, insert -- having an endothelial cell lining --, and cancel "vascular tissue" and insert -- the endothelial cell lining --;

lines 4 and 5, before "endothelial" insert -- vascular --;

line 6, before "endothelial" insert -- vascular --, change "cell" to -- cells --, and cancel "arterial" and insert -- endothelial cell --

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line 7, after "lining" insert -- of the blood vessel --;

Claim 15, line 1, change "1" to -- 11 --;

Claim 16, line 3, cancel "carbohydrates,";

Claim 18, line 5, before the period insert -- , and combinations

5 thereof --.

An extension of time under 37 CFR 1.136(a) is required in order to make the above an examiner's amendment which places this application in condition for allowance. During the above noted interview conducted on 11/18/97, applicants' representative, Patrea L. Pabst, requested an
10 extension of time for a second one MONTH(S) and authorized the Commissioner to charge Deposit Account No. 01-2507 the required fee of \$145.00 for a small entity for this extension.

The information disclosure statement filed 10/21/97 fails to comply with the provisions of MPEP § 609 because a certification has
15 not been provided which is required in addition to a fee after final rejection (37 CFR 1.97(d)). It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure
20 statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements. See MPEP § 609 ¶ C(1).

Any inquiry concerning this communication or earlier
25 communications from the examiner should be directed to David M. Naff whose telephone number is (703) 308-0520. The examiner can normally be

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Art Unit: 1808

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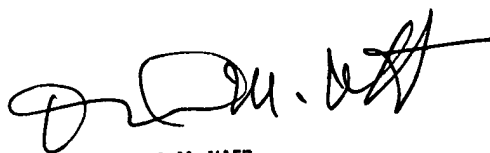
reached on Monday-Thursday and every other Friday from about 8:30 AM to about 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, a message can be left on voice mail.

5 The fax phone number is (703) 305-3014 or 308-4242.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.

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DAVID M. NAFF
PRIMARY EXAMINER
ART UNIT 1808

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DMN
11/18/97